



KHALED MOHAMED DARWISH

Professor (Dr.) - Professor of Soil Sciences

Head of Land & Water Technologies Department

PERSONAL INFORMATION	<p>Full Name: Khaled Mohamed Darwish Mostafa</p> <p>Affiliations: Professor, Head of Land & Water Technologies Dept., Arid Lands Cultivation Research Inst. (ALCRI), City of Scientific Research and Technological Applications SRTA-City.</p> <p>Address: Universities and Research Center District, New Borg El-Arab, P.O. Box 21934, Alexandria, Egypt.</p> <p>Mobile No.: +201022645387</p> <p>E-mail: kdarwish@hotmail.com kdarwish@srtacity.sci.eg</p> <p>Important links: https://scholar.google.com/citations?user=UjhOzA8AAAAJ&hl=en</p>
EDUCATION	<p>Doctorate (Ph.D) Doctor of Natural Sciences (Dr. rer. nat), 2004, Faculty of Mathematics and Sciences, Greifswald University, Germany.</p> <p>Master of Science (M.Sc.) Master of Science in Soil Science and Eremology, 1998, Faculty of Agricultural and Applied Biological Science, Ghent University, Belgium.</p> <p>Diploma in Soil Survey, 1994, the International Institute for Aerospace Survey and Earth Sciences (ITC), Enschede, The Netherlands.</p> <p>Bachelor of Science (B.Sc.) of Agricultural engineer, 1990, Soil Science Dept., Faculty of Agricultural, Ain Shams Uni., Cairo, Egypt.</p>
ACTIVITIES	<p>Scientific Activities</p> <ul style="list-style-type: none"> • Management and improvement of saline and alkaline soils irrigated by El-Salam Canal in Sinai region (Project - NRC & Ain Shams Uni., 2006). • Effective irrigation and fertilization of arid and semi-arid soils within the context of integrated production (Project member – NRC, 2008). • Land Evaluation for Sustainable Agricultural development, Al-Bustan, El-Nobria (the western Nile Delta), land qualities modeling, land use

planning and yield prediction using GIS and remote sensing applications (Project member – NRC, 2008 -2009).

- The use of remote sensing data and modelling in desertification and sustainable land management (Project – NARSS, 2010-2011).
- Modelling land qualities for land evaluation purposes and yield prediction (Project – NRC, 2012).
- Use of Remote Sensing and GIS for the studies of soil characteristics, soil erosion and mass movement (SART-City, 2015-2016).
- Management of soil information system (SART-City, 2015).
- Member of the consultation comprehensive studies of urbane extension purpose of the Electrical power station of Damanhur (Beharia Governorate) and El-Seyouf power station (Alexandria): Geopedological, geomorphology, physiographic, Geological and environmental investigations (SART-City, 2014 - 2015).

Conferences and Workshops

- 18th World Congress of Soil Science, July 9-15, 2006 – Philadelphia, Pennsylvania, USA. 1.0PA Multiscale Mapping of Soil Properties for Environmental Studies, Agriculture, and Decision-Making – Poster presentation (209b & 215a).
- Refresher Course (Workshop) for Alumni of the M.Sc. Programmers in Soil Science, Eremology and Physical Land Resources, which organized at International Centre for Physical Land Resources, from 3-9 Sept., 2006, Ghent University, Belgium.
- The 6th AARSE Conference Earth Observation & Geoinformation Science in support of Africa's Development", 30 Oct. – 2 Nov., 2006, Cairo, Egypt.
- The International Conference “Water Conservation in Arid Regions”, 12-14 Oct., 2009. King Abdulaziz Uni., Jeddah, Kingdom of Saudi Arabia.
- The 10th International Conference of Egyptian Soil Science Society (ESSS), 4th International Conference of On-Farm Irrigation and Agro-climatology 5-8 Nov., 2012, El-Amriyaa, Alexandria, Egypt.
- The 5th International Conference on Water Resources and Arid Environments (the awards ceremony of the Prince Sultan Bin Abdulaziz International Prize for Water (5th Award)) 7-9 January 2013, King Saud Uni., Riyadh, Kingdom of Saudi Arabia.

- The First International Conference “Food and Agriculture: New Approaches” as Speaker, December 2-4, 2013. National Research Center (NRC), Cairo, Egypt.
- The 11th International Conference Egyptian Soil Science Society (ESSS), “Climate Changes and Sustainable Development of Natural Resources”, 5-7 May 2014, Kafr El-Sheikh, Egypt.
- DAAD Alumni Conference: “Management of Resources – Multi-disciplinary Perspectives from along the Nile” on November, 10th-12th 2016, Cairo, Egypt.
- The 3rd International Conference on Agricultural and Food Engineering (CAFEi2016), on 23-25 August, 2016 at Kuala Lumpur, Malaysia. Spatial Multi-Criteria Evaluation (SMCE).
- The 4th International Conference on Agricultural and Food Engineering (CAFEi2018) “Adapting to Challenges”, on 7-9 November, 2018. UPM, Kuala Lumpur, Malaysia. Geospatial Multi-Criteria Assessment and Distribution Analysis (GMCA).

Training Courses

- The training course on Desert Control Science and Technology for African Countries sponsored by the Ministry of Commerce and organized by Gansu Desert Control Research Institute (GDCRI), from Aug. 1st, 2006 to Sep. 30th, 2006 in Wuwei, the People's Republic of China.
- Advanced Course “Soil Salinity in Agricultural Systems: Impact and Management”, International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM), the Mediterranean Agronomic Institute of Zaragoza (IAMZ) Zaragoza (Spain), 26-31 October 2009.
- Advanced Course “Statistical Analysis of Geospatial Data for Environmental Studies”, International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM), the Mediterranean Agronomic Institute of Zaragoza (IAMZ), Zaragoza (Spain), 9-20 June 2014.
- Statistical Analysis Using STATA, within the DAAD Kairo Akademie on 14 & 17 April, 2016, Cairo, Egypt.
- Advanced Course for Professionals “Restoration of Degraded Drylands and Monitoring of Desertification Processes”, International Centre for

Advanced Mediterranean Agronomic Studies (CIHEAM), the Mediterranean Agronomic Institute of Zaragoza (IAMZ), Zaragoza (Spain), 5-10 February 2018.

Administrative Activities

- **Head of Land & Water Technologies Department, Arid Land Cultivation Research Institute (ALCRI), City for Scientific Research and Technology Applications (SRTA-City), Borg Al-Arab.**
- Head and member of the Tenders Committee for the Arid Land Cultivation Research Institute, City for Scientific Research and Technology Applications (SRTA-City, 2014 - 2020).

Extra-curriculum Activities

Supervisions

- # Doctorate (Ph.D.) Thesis, Soils & Water Dept., Faculty of Agri., Al-Azhar University, Cairo (2012).
- # Two Doctorate (Ph.D.) Thesis, Soils and Water Dept., Faculty of Agric. (Saba Basha & El-Shatby branches), Alexandria University (2018-2019).
- # Master (M.Sc.) Thesis, Department of Geophysics, Faculty of Sciences, Alexandria University (2018).
- # Master (M.Sc.) Thesis. Soil Science Dept., Faculty of Agriculture-Saba Basha, Alexandria Uni. (in progress).

Membership in Scientific Societies and Associations

- Egyptian Soil Science Society (ESSS) since 1992 up till now.
- Egyptian Society of Safe & Clean Agriculture (ESSA) since 1999 - now.
- Egyptian Society of Young Researchers, National Research Center (NRC) since 1999.
- International Union of Soil Science (IUSS), the global soil science community. www.iuss.org, Wageningen, the Netherlands, since 1994- .
- ITC Alumni, Faculty of Geo-Information Science and Earth Observation (ITC), Twente Uni., Enschede, the Netherlands, since 1994 - now.
- DAAD Alumni, German Academic Exchange Service, Bonn, Germany, since 2004 up till now.

	<p><u>Organizing Events</u></p> <ol style="list-style-type: none"> 1. Organized a Symposium on SurPASS-Electrkinetic Analyzer on 30 April, 2014, National Research Center, Cairo, Egypt. 2. Organized, instruct and Teach in the Winter School: “The Role of Modern Technology in Reclamation and Developing Arid Lands Sustainability”, Arid Land Cultivation Research Inst. (ALCRI), City of Scientific research and Technological Applications (SRTA-City), from 27-01-2019 to 03-02-2019. - برنامج التدريب الشتوى : دور التكنولوجيا الحديثة في الأستصلاح والتنمية المستدامة للأراضي القاحلة (٢٠١٩). 3. Organized, instruct and Teach in the Summer School: “Sustainable Management of Natural Resources in Arid Zones”, (ALCRI), (SRTA-City), from 07-07-2019 to 11-07-2019. - برنامج التدريب الصيفى: الأدارة المستدامة للموارد الطبيعية في المناطق القاحلة (٢٠١٩). <p><u>Reviewer</u></p> <ul style="list-style-type: none"> - Arid Land Research and Management Journal (Taylor & Francis Group) ISSN 1532-4982 (Print), 1532-4990 (Online). - Environmental Earth Sciences (Springer) ISSN: 1866-6280 (Print) 1866-6299 (Online). - Arabian Journal of Geosciences (Springer) ISSN: 1866-7511 (Print) 1866-7538 (Online). - The Egyptian Journal of Remote Sensing and Space Sciences (EJRS) (ELSEVIER) - ISSN: 1110-9823. - The African Journal of Agricultural Research (AJAR) (ISSN 1991-637X) Academic Journals (open access journal) www.academicjournals.org <p><u>Editorial Manager</u></p> <p>Editorial Manager in the Environmental Monitoring and Assessment Journal, ISSN: 0167-6369 (print version), ISSN: 1573-2959 (electronic version), Impact Factor: 1.804, Springer.</p>
<p>GRANTS & AWARDS</p>	<p>Grants</p> <ol style="list-style-type: none"> 1. Post-doctor Mission for six months- the ministry of higher education, as a visiting scientist, March, 2015 - Sep., 2015, the Geography and Geology Inst., University of Greifswald, Germany.

	<p>2. Post-doctor six months Erasmus Munds program as a visiting scientist, 2011 – 2012, the Faculty of Geoinformation Science and Earth Observation ITC, Uni. of Twente, Enschede, the Netherlands.</p> <p>Awards</p> <p>1. Achievement Award from the Academy of Scientific Research and Technology ASRT - the individuals and organizations Awards (Award of Prof. Abd Al-Moneem Hagazy) in the field of Desertification Combating Sciences, 2016, ASRT, Cairo, Egypt.</p> <p>- جوائز أكاديمية البحث العلمي والتكنولوجيا (الأفراد والهيئات) - جائزة المرحوم أ.د. عبد المنعم محمد حجازي - فى مجال مكافحة التصحر - للعام ٢٠١٦ - أكاديمية البحث العلمي والتكنولوجيا - وزارة التعليم العالى والبحث العلمي.</p> <p>2. Achievement Award in recognition and appreciation of research contribution and great scientific achievement of distinguished publications, 2014, 2015, 2017 - SART-City, Borg El-Arab, Egypt.</p>
<p>LIST OF PUBLICATIONS</p>	<p>1. Abdelallah Elsayed, Maher Georg Nessim, Islam Ibrahim Abou-El-Seoud, Khaled Mohamed Darwish, Abdelaal Shamseldin (2019). Isolation and selection of highly effective phosphate solubilizing bacterial strains to promote wheat growth in Egyptian calcareous soils. Bulletin of the National Research Centre. 43:203, DOI: https:// 10.1186/s42269-019-0212-9</p> <p>2. Abdel Kawy, W.A.M. Khaled Darwish (2019). Assessment of Land Degradation and Implications on Agricultural Land in Qalyubia Governorate, Egypt. Bulletin of the National Research Centre. DOI: https://doi.org/10.1186/s42269-019-0102-1</p> <p>3. Sami Z. Mohamed, Bahnassy M., Gaber H., Darwish Kh. M. (2018). Comparative Study of Landform Mapping Using Terrain Attributes and Topographic Position Index (TPI): A Case Study in Al-Alamien-Ras El-Hekma Region, Egypt. Alexandria Science Exchange Journal, Vol.39, No.4 October- December 2018. DOI: https://doi.org/10.21608/asejaiqjsae.2018.18884</p> <p>4. Ahmed A. Afifi and Khaled M. Darwish (2018). Detection and impact of land encroachment in El-Beheira governorate, Egypt. Modeling Earth Systems and Environment. Vol. 4 (2): pp 517–526. https://doi.org/10.1007/s40808-018-0462-9</p> <p>5. Wahba, M.M., Labib, B. F., Darwish, Kh. M. and Zaghloul, M.A. (2016).</p>

Application of Bentonite and Zeolite to Eliminate the Hazards of Cadmium, Copper and Nickel Metals in Contaminated Soils. Clay Research, Vol. 35, No. 1, pp. 34-42.

6. **Kh. M. Darwish**, W. A. M. Abdel Kawy, A. A. Afifi & R. Zölitz (2015). Estimating the rainfall erosivity for management planning in the Eastern Desert, Egypt, Geocarto International, Vol. 31, No. 10, 1123–1141.
7. **Kh. M. Darwish**, Mohamed Rashad, Sami Z. Mohamed, A. Gad (2015). Spatial distribution analysis of soil variables for agronomic development in El-Omayed Area, North-Coastal of Egypt. Environ Earth Sci., 74:889–901.
8. Hoda Farouk Zahran and **Kh. M. Darwish** (2015). Management of Watershed Areas. Abstract Book of Desert Technology 12th International Conference (DT12). November 16th – 19th, 2015. Faculty of Agriculture, Cairo University, Egypt.
9. Ahmed A. Afifi, **Kh. M. Darwish** and Refat A. Youssef (2014). Geospatial information and indicators for mapping land sensitivity to degradation in Siwa Oasis, Egypt. Sci-Afric Journal of Scientific Issues, Research and Essays Vol. 2 (9), Pp.430-441. (ISSN 2311-6188). <http://www.sci-afric.org>.
10. Abdel Kawy W.A. and **Darwish Kh. M.** (2014). Assessment of optimum land use and water requirements for agricultural purpose in some soils South Paris Oasis, Western Desert, Egypt. Arab J Geosci. 7:4043–4058, DOI: [10.1007/s12517-013-1054-7](https://doi.org/10.1007/s12517-013-1054-7).
11. **Darwish Kh. M.** and Abdel Kawy W.A. (2014). Land suitability decision support for assessing land use changes in areas west of Nile Delta, Egypt. Arab J Geosci, 7:865–875.
12. Abdel Kawy W. A. and **Kh. M. Darwish** (2014). Sustainable multivariate analysis for land use management in El-Sharkiya, Egypt. Arab J Geosci, 7:475–487.
13. Elsemary M.A., Ali R.R., **Darwish Kh. M.** and Wahab M.A. (2013). Use of geomatics for mapping soil resources: A case study in some areas, west Nile valley, Egypt. Journal of Applied Sciences Research, 9(11): 5609-5618.
14. Wahab M.A., El Semaary M.A., Ali R.R. and **Kh.M. Darwish** (2013). Land Resources Assessment for Agricultural Use in Some Areas West of Nile Valley, Egypt. Journal of Applied Sciences Research, 9(7): 4288-

4298.

15. **Darwish, Kh.M.**, El-Bordiny. M. A. and Salam, A.S. (2013). Geospatial Analysis for Salinity Hazard within a Semiarid Context. 5th International Conference on Water Resources and Arid Environments (ICWRAE 5): 507-518, 7-9 January 2013, Riyadh, Saudi Arabia- International Journal of Water Resources and Arid Environments 3(2): 96-107, 2014.
16. Rashad, M., **Kh.M. Darwish**, Hassan E. Abdel Salam, Shalaby, E.A. (2013) Environmental Monitoring of Mercury in Urban Soils, Air and Plants of a Mediterranean area, Alexandria, Egypt. International Journal of Energy and Environment (IJEE), Vol. 4 (2): 311-320.
17. **Darwish Kh.**, Safaa M., Momou A., and S.A. Saleh (2013). Egypt: Land Degradation Issues with Special Reference to the Impact of Climate Change (**Book Chapter**), Combating Desertification in Asia, Africa and the Middle East-Proven practices, Springer, Chapter 6, p 113-136.
18. **Darwish, Kh. M.** and Afifi, A. A. (2012). Spatial Distribution of Salinity State in Depression Floor, Western Desert, Egypt. Egypt. J. Soil Sci. 52, No. 2, pp. 259 – 274.
19. Afifi, A. A. and **Darwish, Kh. M.** (2012). A combined use of remote sensing and GIS for the assessment of agricultural land dwindling and its impact in wheat cultivation. Egypt. J. Soil Sci. 52, No. 3, pp. 427-444.
20. Abdel Kawy W. A., Abdel-Aziz Belal and **Kh. M. Darwish** (2011). Crop water requirements in selective wetland areas, West Suez Canal, Egypt. Journal of Agricultural Extension and Rural Development Vol. 4(1), pp. 011-018. [http:// academicjournals.org/JAERD](http://academicjournals.org/JAERD)
21. **Kh.M. Darwish** and M.M. Wahba (2010). Geo-Pedological Features of Some Dry Valleys in the Eastern Desert, Egypt. Journal of GIS Trends, J GIS Trends, 1(1):8-14, www.academyjournals.net.
22. M.A. Rasheed, M.A. Wahab, **Kh.M. Darwish** (2010). Mapping pedological features of some study areas in Western desert, Egypt. International Journal of Academic Research, Vol. 2. No. 1, 117–123, www.ijar.lit.az.
23. **Kh. M. Darwish** (2009). Hydrochemical Potentiality of Water Resources for Agricultural Development in Bahariya Oasis, Egypt. The International Conference on Water Conservation in Arid Regions. 12-14 Oct., Jeddah, Saudi Arabia.
24. Wahba, M. M. and **Darwish, Kh. M.** (2008). Improving the availability

of Potassium from feldspar in sandy and calcareous soils, Egypt. Egypt. J. Soil Sci. 48, No. 3. pp. 393-398.

25. **Darwish, Kh. M.** and W. A. Abdel Kawy (2008). Quantitative Assessment of Soil Degradation in some Areas North Nile Delta, Egypt. International Journal of Geology (www.naun.org), Issue 2, Vol. 2, 17-22.
26. **Darwish, Kh. M.** and Wahba, M. M. (2008). Using Geomorphologic and spectral analysis approaches for mapping salinity within an arid environmental context. Egypt. J. Soil Sci. 48, No.2, pp. 241-251.
27. Wahba, M.M. and **Darwish, Kh. M.** (2008). Micro-morphological Changes of Sandy Soils through the Application of Compost Manure. Journal of Applied Biological Sciences 2 (3): 95-98, ISSN: 1307-1130, www.nobelonline.net.
28. Rasheed, M.A.; Gad, A.; Zoelitz-Moeller, R. and **Kh.M. Darwish** (2008). Geographic mapping and analysis using GIS of study areas in Bahariya Oasis, Egypt. American-Eurasian J. Agric. & Environ. Sci., 4 (1): 125-130, ISSN 1818-6769.
29. **Darwish, Kh. M.** and A. A. El-Khader (2008). Spatial analysis of yield and soil components in an onion field. Journal of Applied Biological Sciences 2 (2): 103-110, ISSN: 1307 – 1130, www.nobelonline.net.
30. **Darwish, Kh. M.** and A. A. El-Khader (2008). Use of statistical and spatial analysis for investigating variations in an onion field at El-Saff, Giza, Egypt. Int. Agrophysics, vol.22, nr.2, pp.103-110, www.International-Agrophysics.org.
31. Wahba, M.M., **Darwish, Kh. M.** and Awad, F. (2007). Suitability of Specific Crops Using MicroLEIS Program in Sahal Baraka, Farafra Oasis, Egypt. Journal of Applied Sciences Research, 3 (7): 531-539.
32. **Darwish, Kh. M.**; Kotb, M.M.; Ali, R. (2007). Mapping soil salinity using collocated cokriging in Bayariya oasis, Egypt. Proceedings of the 5th International Symposium on Spatial Data Quality, ITC Enschede; June 13–15; the Netherlands.
33. **Darwish, Kh. M.**, Kotb, M. M. and R. R. Ali (2007). Estimating Spatial Variability of Soil Salinity Using Cokriging in Bahariya Oasis, Egypt. Egypt. J. Soil Sci. 47, No 2, pp. 99-116.
34. **Darwish, Kh. M.** (2006). Soil salinity mapping in north and south Bahariya oasis, Egypt-using Geostatistics. Egypt. J. Soil. Sci. 46, No.1,

pp. 15-27.

35. **Darwish, Kh. M.**, Kotb, M. M. and R. R. Ali (2006). Estimating Spatial Variability of Soil Salinity Using Cokriging in Bahariya Oasis, Egypt. Proceedings of the Workshop for Alumni of the M.Sc., Workshop IC-PLR, Ghent Uni. 3-9 Sep. 2006, p 208-221.
36. **Darwish Kh. M.**; Wahba, M.M. and Awad, F. (2006). Agricultural Soil Suitability of Haplo-Soils for Some Crops in Newly Reclaimed areas of Egypt. Journal of Applied Sciences Research, 2 (12): 1235 - 1243.
37. Kotb, M. M.; **Darwish, Kh. M.** and F. S. Hanna (2006). Mineralogical studies of some Vertisols in Egypt. Egypt. J. Soil. Sci. 46, No.1, pp.1-13.
38. **Darwish, Kh. M.**; Zoelitz, R.; Rasheed, M.A. and A. Gad (2006). Potential of soil and water resources for agricultural development in Bahariya Oasis. III. Potentiality of water resources. 18th World Congress of Soil Science. (115) July 9-15, 2006 – Philadelphia, Pennsylvania, USA.